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GEORGIAN BLUFFS CLIMATE ACTION TEAM TO FOCUS ON CARBON SINKS

Georgian Bluffs CAT has decided to focus on advocating for natural carbon sinks – wetlands, soil health and forests. The CAT says it sees this area of advocacy as "the Georgian Bluffs advantage", providing the most upside for its efforts. Georgian Bluffs, an ecologically diverse rural and hinterland area between Owen Sound and Wiarton, seems well suited for this focus.

As outreach to younger climate activists, the Georgian Bluffs CAT has established a New Future Creative Challenge:

"What does the post-COVID climate future look like to you? Creatively share your dreams and visions for this new climate chapter! Paint a picture, write a poem, make a comic – it doesn't matter what you do, just be creative! Submit your creation to our Facebook page or georgianbluffsCAT@gmail.com. Get creative and send us your submissions by May 22."

The Georgian Bluffs CAT Facebook page is at https://www.facebook.com/GeorgianBluffsCAT/.

GREY HIGHLANDS SUPPORTS DITCH-MUDLARKS

Unanimously on May 7, members of Grey Highlands Council took a position that helps volunteers who pick up roadside garbage:

"Whereas a number of our residents / businesses have taken it upon themselves and stepped up to the challenge to collect, sort and gather roadside refuse but are faced with tipping fees when depositing them at our local landfills; Therefor be it resolved that staff develop a plan/policy to address and enhance the ability for those who take pride with road side cleaning and to cover the cost of the tipping fees or the removal of gathered/collected material from the roadside."

GREY BRUCE CLIMATE ACTION WEBSITE LAUNCHED

May 7 was the official launch date of the Grey Bruce Climate Action Website. The website, at https://greybruceclimateaction.ca/, is an outreach project of the Grey Bruce Sustainability Network (GBSusNet) whose main website is at http://gbsusnet.com/. Says the home page of the Climate Action Website:

"This site is for everyone who wants to live in a more climate-resilient Grey-Bruce. It provides various ways you can act on the climate crisis, tailored for busy lives. It is geared to environmentalism in general: climate change, biodiversity, food security, soil health and general care for the planet."

The website offers access to a searchable list of upcoming local climate action events, a searchable list of local groups working on environmental and climate action, and a way for groups and individuals in Grey, Bruce and vicinity to work together on climate issues in a chatroom (including a number of subsidiary chatrooms based on climate and environmental themes). Dear readers may want to explore it and add information about your group and about events in your community.

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OWEN SOUND WASTE WATCHERS STILL CLEANING THE TOWN

One of the highlights of the clean-up activities of Owen Sound Waste Watchers is the group nature of many of its activities. Clean-up gangs add an element of socialization not found in hermit-like solo trash picking. Pandemic-driven social distancing makes work gangs unfeasible, yet the trash keeps accumulating in the city.

Since people can't pick up garbage and recyclables together right now, they can at least talk about it together. There lie the roots of Owen Sound Waste Watchers' two "ALONE/Together" events on **Saturday May 23**. From 10 am to noon, volunteers will individually pick up litter at a spot of their choosing (with unique spot per volunteer or immediate family group to avoid clustering). At 3 pm, everyone will gather for a virtual **Talkin' Trash Social**, via ZOOM. Volunteers can register to attend at https://www.surveymonkey.com/r/G9FL62Y. To maintain social distancing, volunteers are asked to identify the part of the city they plan to beautify by specifying street boundaries for their proposed happy hunting ground if possible

ONLINE ECO-FAIR MAKES MEAFORD GREENER, MORE RESILIENT

Southern Georgian Bay and beyond will become greener in late May and early June, thanks to the Eco-Fair called *Just Cool It* organized by the Transition Meaford group. The Eco-Fair will provide three on-line services, accessible at https://www.transitionmeaford.org/eco-fair/, for local residents who want to live in harmony with Meaford's environment.

The first part of the event is a digital community plant sale run by Meaford Community Gardens, a group of volunteers who grow organic food for Meaford's Golden Town Outreach food bank. Local folks can order on-line a variety of seedlings lovingly-grown from organic seeds using organic growing methods. Buyers arrange to pick up their plants at a convenient time. A plant delivery service is available for seniors living in the Municipality of Meaford. Seedlings include a variety of vegetables and herbs, and flowering plants that attract birds and pollinators. The plant sale will run until Community Gardens is out of seedlings – it has lots of them. Proceeds from the sale will help the Community Gardens to expand its Food Bank services and outreach through providing fresh produce, space for those to grow their own food and education opportunities for youth and the community at large.

The second part is an on-line listing of local eco-vendors – individuals and companies – that provide products and services that strive to no harm the environment or that strengthen it. Each listing describes the products or services and lets buyers connect with these businesses online. This green cyber-marketplace will operate indefinitely – for as long as there are green goods to sell and people who want to buy them.

Lastly, there will be a free inspirational workshop series held from 9 am to 1 pm on **Saturday June 6** on current environmental issues as well as practical tips and educational stories, each led by an expert in their field.

People can learn all about the plant sale, the eco-marketplace and the workshops at https://www.transitionmeaford.org/eco-fair/.

The organizers of the Eco-Fair are volunteer members of Transition Meaford, a group dedicated to building community sustainability and resilience – a richer, more vibrant Meaford.

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COLLINGWOOD GROUP BRINGS POLLINATING BUGS TO TOWN

Folks in Collingwood want to establish homelands for bees and butterflies and they've created a new organization to do it. *Pollinate Collingwood*, recently profiled in *Collingwood Today*, (https://www.collingwoodtoday.ca/) helps people to plant pollinating gardens to combat loss of pollinator habitat and food sources because of climate change and pesticide use. Pollinate Collingwood was inspired by the David Suzuki Foundation's Butterflyway Project whose local "Butterflyway Rangers" in 100 Canadian communities plant native wildflowers in public and private spaces. Its ultimate aim is a trans-Canada "highway for butterflies". The Foundation also created a National Butterflyway Schools Program to give schools wildflower seeds, a Butterflyway garden sign and educational materials. However, its spring 2020 launch was postponed by the pandemic. The David Suzuki Foundation's Butterflyway web site is at https://davidsuzuki.org/take-action/act-locally/butterflyway/.

Not to be stymied by the pandemic, Collingwoodians, through Pollinate Collingwood, have worked with local businesses and organizations to host Butterflyway gardens that will bloom this and every year. However, the very active interchanges on Pollinate Collingwood's Facebook page will ensure that private butterfly gardens across the community will bloom too. Pollinate Collingwood is on Facebook at https://www.facebook.com/groups/pollinatecollingwood/.

CANADIAN DRONE PLANTS ONTARIO TREES

Flash Forest, a Canadian startup firm, is using drones this month to plant 40,000 trees on burned-over land north of Toronto. While hovering, the drones drop or fire seed pods into the ground, planting native pine and spruce trees to help restore habitat for birds. Flash Forest aims to plant one billion trees across the world by 2028.

The Intergovernmental Panel on Climate Change says the world must plant one billion hectares of trees – a forest roughly the size of the U.S. – to help limit global warming to 1.5° C. However, the world experiences a net loss of 7 billion trees each year.

Tree-planting drones can work more quickly and cheaply than humans planting with shovels. A Flash Forest drone can plant 10,000 to 20,000 seed pods a day: a human planting by hand can plant 1,500 trees in a day. Flash Forest aims to bring the cost down to 50 cents per tree, 25% of the cost of some other tree restoration efforts.

Flash Forest first uses mapping drones to identify the best places to plant trees, based on soil and existing plants. Next, a swarm of drones begins precisely dropping seed pods packed in a nutrient mix that helps the seeds to germinate rapidly. The seed pods also store moisture, so the seedlings can survive drought.

Flash Forest intends to track seedling progress for up to five years after planting. Because the company chooses native species and uses its seed pods to protect the seeds from drought, the process doesn't typically require work from humans to keep the seedlings alive. Instead, the strategy is to plant a large number of trees and let some naturally survive. To help create biodiversity, each planting uses about four species, with a goal of eight. The company tries to anticipate each site's climate in five to eight years before selecting the species to plant. After the current planting near Toronto and another soon in British Columbia, the company will begin a 300,000-tree restoration project in Hawaii.

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CANADIAN SPACE FIRM TO SET UP UK GREENHOUSE GAS BASE

The Canadian-based space company GHGSat intends to set up a global centre in the UK to analyze the emissions of greenhouse gases. The firm currently flies a spacecraft called *Claire*, launched in 2016, that makes high resolution measurements of atmospheric methane. It will launch two more – *Iris* and *Hugo* – later this year, and ten more by 2022. GHGSat works closely with the European Space Agency, using data from the agency's Sentinel-5P/Tropomi satellite to initially identify atmospheric methane "hotspots" before following up with high-resolution observations from *Claire* to identify the sources.

The British centre will take the satellite data and assess the sources of emissions worldwide. For methane – an extremely potent greenhouse gas – these sources include oil and gas facilities, agriculture, hydro-electric dams, coal mines and landfills.

GHGSat also plans to fly sensor satellites to monitor sulphur dioxide (a significant emission from international shipping) and carbon dioxide.

"RESILIENT RECOVERY" PROMOTES GREEN COVID-19 CANADIAN RECOVERY

In the face of massive lobbying for pandemic recovery funds by fossil fuel industries, a coalition of Canadian clean energy associations and private companies has come together to lobby for the use of Canada's pandemic economic recovery funds for a cleaner, innovative and diverse economy. The coalition, called *Resilient Recovery*, has mounted an on-line petition calling on the Canadian government to:

- Invest stimulus money into Canada's fast-growing clean energy and clean-tech sectors and businesses committed to the local production and export of world-leading low- and zerocarbon commodities
- Act quickly to support clean energy and clean-tech solutions and businesses by expanding existing initiatives and programs
- Say loud and clear that Canada will continue and expand on its best-in-class climate and environmental policies.

The coalition says that signatories representing 2,033 companies have now signed on to support a "resilient recovery". Promotional material for the coalition's campaign says:

"The clean energy sector employs 298,000 Canadians in a wide range of jobs: insulating homes, developing clean technologies and energy storage solutions, manufacturing electric vehicles and deploying charging infrastructure, building and maintaining wind, solar and hydro projects, producing renewable fuels and more."

Some organizations involved as signatories are bioenergy companies that, in the opinion of some, are not true clean energy industries because they produce greenhouse gases through burning plant material.

Green lobbying may have worked, at least partially. Prime Minister Trudeau said at a recent media briefing that pandemic recovery fund recipients will be required to report on their efforts to deal with global warming.

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GREENSPIRATION NEWSLETTER WELL WORTH A READ

Joyce Hall, Chair of the Grey Highlands Climate Action Group, recently made its members aware of a very useful newsletter, *Greenspiration*, produced by activist Angela Bischoff in affiliation with the Ontario Clean Air Alliance. The newsletter offers extensive connections to global, national and provincial environment and climate new stories. To subscribe, please send a message to Angela Bischoff at angela@cleanairalliance.org.

The Ontario Clean Air Alliance has a website (https://www.cleanairalliance.org/) chock full of useful news and backgrounders, focusing largely but not exclusively on green energy.

BIG TECH COMPANIES MAKE GREEN BEEPS

On April 15, Microsoft announced it will conserve more than 11,000 acres of land in the next five years by "using approaches like land acquisition, conservation easement, national park creation, and community or indigenous-led conservation." It also said it will create a new cloud-based platform called the Planetary Computer that will let users aggregate data related to biodiversity and ecosystems around the globe.

Also in April, Amazon announced a us\$10 million grant to conserve and restore four million acres of forest, primarily in the Appalachian Mountains, by working with the Nature Conservancy to help private forest owners sequester carbon. Amazon says it's the first of many nature-based carbon sequestration projects it will bankroll with a us\$100 million fund it announced last year.

Microsoft and Amazon, as well as Google, have been criticized by environmental activists for partnering with fossil fuel companies to use artificial intelligence to find hidden hydrocarbons and bring them to market.

BAD-CRUD-OF-THE-MONTH CLUB: STAGNANT WATER IN IDLED BUILDINGS

Water scientists at Indiana's Purdue University are worried about a secondary health crisis lurking in the dormant plumbing of offices, gyms, restaurants and schools that are idled because of the pandemic. Threats include heavy metals leaching out of pipes, and bacteria and parasites growing in stagnant water. Researchers are studying locked-down water systems to understand how people can safely reoccupy buildings. Purdue environmental engineers Andrew Whelton and Caitlin Proctor are leading several studies to understand the complex chemistry that occurs in dormant water systems.

When Purdue shut down in March, Whelton began sampling water in large university buildings. Although such buildings can go for two or more months with reduced student activity between semesters, the current shutdown will last longer. Proctor wants to know how the microbial communities in the buildings' water systems will change over the coming months.

The longer a building is idle, the more potential there is for harm because the length of time between water treatment and use is a key factor determining bacterial regrowth. A main concern is Legionella, a bacterium that causes Legionnaires' disease. Legionnaires' attacks the body's respiratory system, so declining water quality could add to the strain on already stressed health systems. Say Proctor, "The same people that are vulnerable to COVID are going to be vulnerable to these bacterial pathogens."

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Conventional wisdom says that after a period of dormancy, taps should be run at full flow for between five and 10 minutes to flush stagnant water from pipes, but one building the Purdue team studied required more than a full day to flush. For large complexes like universities, there might not be enough staff to routinely flush every building, and small businesses could balk at increased water bills from flushing. Without sufficient masks and respirators, staff carrying out flushing are at risk of inhaling Legionella and other pathogens growing in the pipes.

OUR READERS KNOW A THING OR TWO

In response to last issue's editorial on the Moore and Gibbs film *Planet of the Humans*, a dear reader offered these comments:

"I have consistently had doubts about solar and wind particularly in the disastrous way they were implemented by Kathleen Wynne and Gerald Butts¹. It makes no sense on a financial basis let alone net (negative) energy considerations. More effective/ efficient storage will help somewhat when it arrives, but as the film documents there are other daunting limitations. And I was horrified by the callous seemingly massive use and justification of biomass. I did some consulting work for the IJC 15 years ago and at that time they were advocating banning wood fires of any kind in northern Michigan to limit emissions. How far we have fallen! Growing trees is part of the climate change solution. Burning them contributes to the problem.

As for answers, they aren't easy. But I too am taken with the view that the problem is not CO₂, it's us. Understanding the problem is an essential first step to developing and implementing effective solutions, as difficult as they may be. And we must be vigilant in stopping the Koch brothers of the world from appropriating noble efforts to their material gain. To me that's one of the primary lessons of Planet of the Humans."

Another dear reader said:

"John's four points for moving forward are helpful, but I would start with no. 4 [control the remnants of capitalism and its growth ideology] for the simple reason that we can no longer pretend the environment is something separate from our economy and our health and our society's well-being. They are all too interrelated to tease apart and too entwined to think we can do one thing well (e.g., stop climate warming) without attending to the others – inequality, endless wars, threadbare health programs.

If we don't find another way to do democracy and the economy, we will never push aside the corporations who, as the film so graphically shows, co-opt efforts to halt climate change ... and wars, and inequality, and our eroding health care systems. Corporate capitalism (as opposed to share-the-wealth-based-on-labour capitalism) is, as Karl Max said, a vampire. It is, as my First Nations friends say, a wiindigoo². The earth cannot handle any more human progress."

Another dear reader had these cogent remarks about the film:

"I personally found the film very distressing, thinking that we still don't have solutions. I'm not convinced homo sapiens is evolved enough to make the systemic changes we need, fast enough. Even though Covid was a wake-up call. I especially liked the comments 'it's not CO2

¹ Former Principal Secretary to Prime Minister Justin Trudeau and former Principal Secretary to Ontario Premier Dalton McGuinty,

² Wiindigoo (also windigo and wendigo) is a spirit that possesses people, turning them into cannibals.

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destroying the planet, it's us' and 'We need to take control of OUR environmental movement'... Going forward we must examine carefully any green energy project. Capitalism has it grips everywhere, just as patriarchy does.

The good thing about the film, from my point of view, is that it will generate a lot of discussion. My main concern is that it will be used by deniers to say that there is no solution so let's just continue business as usual."

Another thoughtful reader viewed **Planet of the Humans** and shared a lesson about simplification leading to demoralization:

"I watched Planet of the Humans, and also felt that the oversimplification might engender further oversimplification, i.e., that 'all of this green tech is just a new type of corruption, everything is corruption, let's all stop trying' – kind of like dismissing the utility of all religious teachings because of zealotism."

BRITISH KIDS SING FOR CLIMATE ACTION

I'm not a big fan of "Slobovia's Got Talent"-type programs, but a recent episode of *Britain's Got Talent* (presumably filmed before the pandemic lockdown) managed to switch on my "cute" receptor cells. Found at https://www.youtube.com/watch?v=yqlVWlq6lRq, it's a performance by an eco-choir of four- to sixteen-year-olds, *S.O.S. From the Kids*, singing a song written by one of the boys and his mother, calling on us to protect the earth and ending with line "We can do better than this." It's a good example of the activism of youth that puts so many of us adults to shame, and it highlights the increasing infiltration of pop culture by the climate change message.

The choir started because Sim Macauley (12 years old) and his brother Noah from Liss, Hampshire, watched nature filmmaker David Attenborough's documentary *Climate Change* – *The Facts* and were inspired to sing about climate change. With help from their mother Dorry, they recorded their song *SOS From the Kids* with their cousin Coen Baines. Other local kids got on board, and the choir then performed it on *Britain's Got Talent*. David Attenborough wrote a letter to Sim and Noah paying tribute to them for their hard work on climate action.

NEW YORK CITY AXES COMPOST, ELECTRONICS COLLECTION – FOR A WHILE?

In an environmental setback that might become common and long-lasting across North America, New York City's Sanitation Department announced on May 4 that it is suspending its curbside composting collection program for over a year (until June 31, 2021). It also announced the indefinite suspension of appointments for curbside electronics collection, which had been halted due to the COVID-19 crisis. It said it was taking this action "in the face of economic hardship, and to ensure the City can continue to devote resources to essential safety, health, and shelter, and food security needs." Funding was also cut for eight non-profit organizations that provide public composting services to New Yorkers.

The pause in city composting prompted the *New York Times* to publish a how-to article for New Yorkers wanting to create a compost bin that can be placed in their living rooms.

Cities across the world will likely be under pressure to reduce services – even environmentally important ones – as their revenue bases shrink because of the economic effects of the pandemic.

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PUBLIC TRANSIT A PANDEMIC VICTIM?

Much like recycling and municipal composting, public transit may be an enduring victim of the pandemic, partly because of riders' reluctance to sit close to other strangers and partly because cash-strapped municipalities may see public transit as a place to save money in tough post-pandemic times.

The Toronto Transit Commission has temporarily laid off 1,200 employees amid an 85% drop in ridership. In Metro Vancouver, TransLink says it's losing about \$75 million each month due to reductions in ridership and lost fuel tax revenue.

Locally, our Big Ship That Could – the MS Chi-Cheemaun – begins service on June 1, but only for "essential transportation" (not for tourism or recreational travel). According to federal Ministry of Transportation rules, it can operate (with social distancing precautions) because it provides "the most practical means to give passengers access to their domicile or residence or their place of employment, access to essential goods and services, transport cargo to resupply communities, business or industry, or provide other essential services."

In short, the Big Canoe will keep our haw-eating Manitoulin Island friends connected to the duplicitous southern mainland.

BICYCLE USE DURING PANDEMIC: AN ENDURING CHANGE?

At a time when almost half the world's population is under pandemic-induced restricted movement, cycling seems a safe way to avoid crowded public transportation systems. In New York, cycling spiked by 52% over the city's bridges after social-distancing protocols were put in place. In Chicago, bikeshare use doubled in early March. In Dublin and London, advocates are offering support to the many new riders who are taking to the streets.

Cycling advocates are lobbying for the creation of emergency bike pathways through cities – pathways that may survive the ebb of the pandemic if enough urbanites adopt the bike as their ongoing preferred mode of transport.

Bogotá, Colombia, is installing emergency cycleways to keep people moving while enhancing social distancing. Mexico City is considering a similar plan. In the U.S., New York City leaders are looking at ways to accommodate new riders, and they say they will build two emergency bicycle lanes to plug gaps in the network. In London, the city's bikeshare system is now free for health workers to use. In New York, San Francisco, Berlin, and across the U.K., bike shops have been allowed to stay open as essential services. Proponents of bike freeways can look to the Netherlands for advice and inspiration: decades ago the Dutch government initiated a mass program of cycle track construction that still continues. Nearly 30% of all trips nationwide happen on a bike, and cities are even connected by bicycle "superhighways."

Cycling in a time of crisis may be about more than personal necessity. Said a recent Citylab article on pandemic-induced cycling:

"There could be something positive to come out of the tragedy of this pandemic – a means of transforming the way we travel, cleaning up our air, improving our health and tackling the climate crisis. It is our opportunity to take."

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COW BELCH REDUCTION: USURP THE BURP

Mootral, a Switzerland-based company, will soon be issued the world's first carbon credits for methane reduction in cows. Mootral makes a new supplement for cattle feed that reduces the amount of methane, a potent greenhouse gas, that cows emit when they belch.

Methane is 84 times as potent a greenhouse gas as carbon dioxide. A single industrially farmed cow produces roughly as much pollution as six average European cars; there are around 1.4 billion cattle in the world. By one estimate, cows emit more climate pollution globally than the entire economies of Japan or Germany.

The company's product adds compounds from garlic and citrus to pellets that are mixed in with cow feed. The garlic in the supplement helps reduce the number of microbes so burps become less potent.

SEA LEVEL RISE

Oceans are likely to rise as much as 1.3 metres by 2100 if Earth's surface warms another 3.5 degrees Celsius, scientists warn. By 2300, when ice sheets covering West Antarctica and Greenland will have shed trillions of tonnes in mass, sea levels could go up by more than five metres under that temperature scenario, redrawing the planet's coastlines, they reported in *Estimating global mean sea-level rise and its uncertainties by 2100 and 2300 from an expert survey* a peer-reviewed survey of more than 100 leading experts published in *Nature* (May, 2020) and available at https://www.nature.com/articles/s41612-020-0121-5.

About 10% of the world's population, or 770 million people, live today on land less than five metres above the high tide line.

UNBEARABLE HEAT

According to a study published in the *Proceedings of the National Academy of Sciences*, a billion people will either be displaced or forced to endure insufferable heat for every additional 1C rise in the global temperature. In a worst-case scenario of accelerating emissions, areas where a third of the world's population live will be as hot as the hottest parts of the Sahara within 50 years.

Even in the most optimistic scenario, 1.2 billion people will fall outside the comfortable "climate niche" in which humans have thrived for several thousand years. India, Nigeria, Pakistan and Indonesia will each have more than one hundred million of their citizens exposed to that level of heat at the same time agricultural production in these nations will be seriously damaged by extreme heat, drought and more frequent and more severe extreme weather events.

Said study co-author Marten Scheffer of Wageningen University, "We were blown away by the magnitude. There will be more change in the next 50 years than in the past 6,000 years." Said fellow co-author Xu Chi of Nanjing University, "Clearly we will need a global approach to safeguard our children against the potentially enormous social tensions the projected change could invoke."

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L.A. ROBOT MEASURES COOL STREETS, HOT WALKERS

Los Angeles' plan to cool the city as the planet grows warmer is getting a boost from a streetsmart robot named MaRTy.

The Los Angeles Cool Streets program, one of the city's Green New Deal strategies adopted in 2019, started with a pilot project that has covered several blocks of road and sidewalk in two neighborhoods with a solar reflective coating to reduce surface temperatures.

The coating prevents asphalt from retaining heat that adds to the "urban heat island effect" that keeps cities from cooling down, even in the evening. The pilot program aims to test the cooling effects on an entire neighborhood.

However, initial research reveals an unintended, ground-level effect: The paint's highly reflective properties elevate pedestrian exposure to heat: the pavement stays cool but the person walking on it is exposed to reflected heat from the pavement. On a test day in July 2019 when L.A. air temperatures hit the high 80s, researchers found that coated roadways were cooler to the touch by as much as 11°F compared with nearby untreated asphalt – but mean radiant temperatures (a good predictor of thermal comfort for humans) at midday were more than 7°F warmer in a five-foot-high area above the cool surfaces.

To fully understand the radiated heat, researchers from the Arizona State University's SHaDE Lab created a sensor-laden robot named MaRTy to trundle the neighborhoods, gathering data on mean radiant temperature. The researchers describe MaRTy as "essentially a garden cart that has a lot of meteorological sensors attached to it." In addition to measuring surface and air temperature, wind speed and humidity, the robot collects information on long- and short-wave radiation to determine mean radiant temperature. MaRTy is also nimble enough to trundle along sidewalks, ravines or other locations where a pedestrian might wander, setting it apart from measurement tools mounted on street vehicles.

The cool pavement project is part of L.A.'s multipronged strategy to combat climate change at the neighborhood level. The city's Bureau of Street Services has also planted trees, built shade structures and installed hydration stations. Future research could explore how cool pavement works in combination with these complementary measures to reduce the heat island effect on a community scale while also increasing pedestrian thermal comfort at the street level.

NEW U.S. CLIMATE ACTIVIST GROUP LAUNCHED

The direct action climate organization called *Sunrise* – largely youth-focused – has just helped to launch another direct action group, this one for all age groups. Called *Arm in Arm*, it ties climate activism to economic and racial justice. The group is U.S. based but it's likely to spread beyond the U.S. as the direct action arm of the climate movement regroups to ensure climate issues are not swamped by pandemic issues. Describing its approach as "*sustained disruptive humanitarianism*", Arm in Arm says:

"We are the first generation to feel the effects of climate change and the last to be able to do anything about it. We are the flooded. We are the drought-stricken. We are the brokenhearted sifting through ashes. We are farmers yielding fewer crops. We are the poisoned, whether we know it yet or not. We are the young struggling to breathe and the seniors with limited mobility. We are friends and family, co-workers and neighbors.

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We are indigenous. We are migrants. We are of all colors, ages, races, religions, genders, backgrounds and abilities who want to protect the people and places we love... Time and time again, the decisions propelling the dirty energy economy – the extraction and burning of fossil fuels and other natural resources – sacrificed those most vulnerable. Profit-obsessed corporations and the politicians who do their bidding have used, abused and discarded our communities.

As we rise to our rightful place at the table, the architects of the climate crisis will try to divide us by class, age, race, gender, place and ability. They tell us that some communities must choke on dirty air for others to put food on the table, that we must choose between a stable climate and a robust economy, between "us" and "others." They use slick words to hide the real culprit – themselves. No more. We refuse to support a system that does not support us and threatens our very lives."

It describes its activism this way:

"The movement calls on people to draw attention to systemic failures and injustice in their communities through civil, disobedient acts. Millions of Americans will participate in coordinated work stoppages, mass boycotts and other peaceful acts of civil disobedience organized through a distributed, autonomous hubs and supporting organizations...

By 2022, we want between 2 - 11 million people to participate in sustained strategic, non-violent action, including but not limited to: marches, demonstrations, boycotts, town hall meetings, etc. Eleven million equals 3.5% of the American population."

Arm in Arm currently has seven "hubs" in communities across the U.S. Its website is at https://arminarm4climate.org/.

ROB'S REALS: EYEWITNESS TO CLIMATE CHANGE

Our video guru Rob drew our attention last week to a treasure trove of YouTube videos from *Grist*, an excellent news site with extensive climate action coverage. The videos, at https://www.youtube.com/channel/UC7ga3FLMFOOpMQwaYoW42bw, make for a full afternoon of enlightening viewing. Most are under five minutes viewing time and include a number of videos from *Umbra*, Grist's on-line environmental advice columnist. Happy green viewing!

A video from the International Psychoanalytical Association's Climate Committee, and widely distributed by the Climate Psychology Alliance of North America, uses the archetype of the soothing grandmother to help people troubled by the convergence of climate change, economic woes and the pandemic. Titled *Corona, Climate and Grandma*, the five minute soothing video at https://www.youtube.com/watch?v=ind4g0HNkAE says:

"Breakdowns can be breakthroughs if they can help us see what is wrong and needs changing in the world and in ourselves... We need Grandma on this journey... Grandma is the person who loves us and understands us and she is kind. She knows how badly we can all behave. She forgives us.

Grandma is based on real people we love, but we can also find and re-find Grandma in ourselves. Together with Grandma we can find strength to repair ourselves and our damaged world."

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IN MY HUMBLE OPINION: THE BARN OR THE MOON

Dear reader Rosemary Gosselin, a fellow devotee of the Japanese poetic form *haiku*, recently sent me a *haiku* by the poet and samurai Mizuta Masahide (1657–1723):

Barn's burned down. Now I can see the moon

Like all *haiku* masters, Mizuta Masahide expresses profundity in few words. The *haiku* is based on a real event: his barn (or it may have been his house) burned down.

Our samurai poet was making the best of a bad thing in his *haiku* – but the bad thing wasn't the fire – it was the barn, the man-made structure, symbol of security and wellbeing and storing things, that blocked his view of an awesome phenomenon not of our making (the moon does things to us, doesn't it?)

The pandemic has burned down many of our barns – those places where we stored away our preconceptions, our safe suppositions – *The age of infectious diseases has passed. Technology will protect us from disaster. Our leaders will selflessly protect us. Modern global crises won't require us to change how we live life or what we value in life while we live. We will always look after each other. Adults are wiser than children.*

Burned, all of them. Or at least singed enough to make them unusable.

The optimists among us say, it's good that the obstructive barns of our limited understanding are burning. We can now construct ways of living more humbly, ways that suit us better for the climate crisis already upon us. We won't let the loss of old ways of thinking and living obsess us with grief for things past. Instead, we'll glory in the light of ways of living that laud our world rather than laying waste to it. Barns be gone – we've got the moon instead!

The realists among us say, it's not that simple. There's ample evidence that we human beings change our beliefs before our behaviors change – by all means, we say, let's congratulate ourselves on thinking and feeling green as long as we don't have to stop flying three times a year to Kelowna to see the grandkids, or sell our SUV, or mow less than a quarter acre of chemically embalmed lawn, or create space for those from other places who are slated to be executed by the droughts and floods and fires we've created.

The pessimists among us say, it's too late to change how we think and how we live, we are too shallow to embrace the moon anyway, and when the coronavirus ebbs we will build those barns up again, only to see them destroyed (along with us) in an even greater conflagration called global climate disaster.

Somewhere in the triangle formed by the optimists, realists and pessimists lie most of us with our scientists, politicians, police, poets, saints and theologians, trying to figure out what the hell to do – or more precisely, trying to figure out how to find the guts to do it.

Respectfully submitted to the *Polis*John Butler

Number Twenty-four, May 20, 2020

ARCHAEOPTERYX IN SITU

There is an archaeopteryx on my lawn.
I do not know its gender
(but does anyone?)

The sun glints off the turquoise leather feathers of its caudal crest.

It pecks at the petrified stems of ancient horsetails.

It picks its teeth with a dewclaw.

It poops amber pellets into the flower beds.

It squawks at puzzled cats come to interrogate

the biggest bird

they've ever seen.

What will the neighbors think?

John Butler

FACTS THAT HELP US CHANGE THE WORLD

Alberta has nearly 3,000 orphan wells – oil and gas wells that haven't been remediated by their often-bankrupt owners. (There are more than 90,000 inactive wells that remain in corporate hands but sit idle for economic reasons). Last month, Ottawa announced it would provide Alberta with \$1 billion to help clean up those sites, including a \$200-million loan to the Orphan Well Association, an industry-funded group that cleans up orphaned infrastructure.

source: CBC What on Earth? climate/environmental newsletter, April 7, 2020

In an international Ipspos MORI poll, about 71% of respondents said climate change is as serious a crisis as COVID-19.

- Among respondents from China, the percentage was about 85%
- Among respondents from India, the percentage was about 80%
- Among respondents from Canada, the percentage was about 65%
- Among respondents from the U.S. the percentage was about 60%.

source: British Broadcasting Corporation, May 7, 2020

The United States is on track to produce more electricity this year from renewable power than from coal for the first time on record.

source: U.S. Energy Information Administration

Number Twenty-four, May 20, 2020

SHE SAID / HE SAID

"The extent of widespread change required to address climate change is nearly impossible to achieve in a state of stability and steady growth. In the case of an issue as complicated and intangible as climate change, when things appear fine on the surface, it is nearly impossible to garner the public will to make sweeping changes. Sometimes, a system needs to experience a shock to make any meaningful change. Maybe, in addition to showing us a path for widespread action, and sparking faith in our ability to do so, this pandemic can be that shock for us."

Collingwood CAT member Allison O'Halloran, in her op ed piece COVID-19 Response Gives Hope For Climate Action, published in Collingwood Today, May 13

"The good we secure for ourselves is precarious and uncertain, is floating in mid-air, until it is secured for all of us and incorporated into our common life."

Progressive Era activist, sociologist, philosopher and Nobel Prize winner Jane Addams, 1892

"We have a situation with climate change which will involve every country in the world and from which we can't self-isolate."

Mark Carney, former Governor of the Bank of Canada and former Governor of the Bank of England

"Covid-19 was a case of biology confronting and shaking the complacency of day-to-day politics with a physical reality of sickness and death. The question is, when will the physics of climate change mug the complacency and denialism – just as biology has with respect to the virus."

Former Australian Prime Minister Malcolm Turnbull

"The battle humanity is waging against the coronavirus is only the preliminary round, and after that, we have a much bigger and stronger opponent waiting for us, called the climate emergency. That some people still may think that something as objectively and scientifically proven is still up for debate could be seen as one of the greatest achievements of the fossil fuel industry. It's not. It's the greatest threat to human life... The economics of renewable energy are well known. Years ago, it was only competitive when backed by government subsidies. Now, the situation has been reversed: while oil companies receive more than \$5 billion dollars each year in government subsidies, they bribe politicians who oppose environmental legislation, and they have no problem finding banks to lend them money, renewable energies are already cheaper than oil, gas or coal, a fact that should consequently change the global energy landscape."

leadership strategist Enrique Dans, In A Post-Pandemic World, Renewable Energy Is The Only Way Forward, Forbes, May 3, 2020

"Overwhelmingly, we feel fear. We fear the predicted effects of 400 years of seeking our advantage through transforming the Earth, effects that will not only be climatic but also social and political. We fear that our children will inherit a degraded Earth. We fear that we have caused this devastation and this curtailment of our children's flourishing. The emotion that plagues us is fear of our own power."

Beth Lord, philosopher and professor, the School of Divinity, History and Philosophy, University of Aberdeen

Number Twenty-four, May 20, 2020

"It would not have occurred to Socrates or Epicurus to argue for the simple life in terms of environmentalism. Two centuries of industrialisation, population growth and frenzied economic activity have bequeathed us smog; polluted lakes, rivers and oceans; toxic waste; soil erosion; deforestation; extinction of plant and animal species, and global warming. The philosophy of frugal simplicity expresses values and advocates a lifestyle that might be our best hope for reversing these trends and preserving our planet's fragile ecosystems. Many people are still unconvinced by this. But if our current methods of making, getting, spending and discarding prove unsustainable, then there could come a time – and it might come quite soon – when we are forced towards simplicity. In which case, a venerable tradition will turn out to contain the philosophy of the future."

Emrys Westacott, professor of philosophy, Alfred University (New York).

His latest book is *The Wisdom of Frugality* (2016)

"The development of clean technology means preventing a climate crisis now and requires deep commitment rather than dreadful sacrifice."

Jesse Remedios, *Earthbeat* (National Catholic Reporter), May 15, 2020

the post is wiped all clean... spring mist

Kobayashi Issa (1763 -1828)

For information about *The Village Green*, or to subscribe to it (free), contact John Butler at 519 923-6335 or agora@xplornet.com